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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

THOMPSON, JAMES A

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 10/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/803,441

Applicant(s)

LEHMEIER ET AL.

Examiner

James A Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On page 9, line 6, "the method 10" should be changed to "the method 12" in order to be consistent with figure 2.

Applicant is advised to thoroughly check the specification and drawings to ensure proper grammar, spelling, and punctuation and to ensure that all drawing numbers are properly referenced in the specification.

Appropriate correction is required.

Prelude to Prior Art Rejections

2. Claims 14-15 and 17-20 disclose apparatuses. Claims 1 and 7-11 disclose methods. The claims are grouped together as shown below since each of the apparatus claims performs the method disclosed in one of the method claims, specifically the method claim with which the apparatus claim is grouped below.

Groupings:

- a. Claims 1 and 14
- b. Claims 7 and 15
- c. Claims 8 and 17
- d. Claims 9 and 18
- e. Claims 11 and 19
- f. Claims 10 and 20

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 8, 10-11, 14, 17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar (US Patent 5,598,186) in view of Ringland (US Patent 5,751,829).

Regarding claims 1 and 14: Edgar discloses a system (figure 7 of Edgar) comprising a scanning apparatus (figure 7(146) of Edgar), said scanning apparatus scanning an object (column 7, lines 50-54 of Edgar) having the color to be matched (column 6, lines 18-21 of Edgar), said scanner apparatus producing a color image data signal representative of said object (column 7, lines 50-54 of Edgar); and a computer (figure 7(142) of Edgar) operatively associated with said scanner apparatus (as can clearly be seen in figure 7 of Edgar), said computer mapping said color image data signal to the defined color space to ascertain the corresponding color (figure 6 and column 6, lines 27-32 of Edgar).

Edgar does not disclose expressly that said computer informs a user of the corresponding color.

Ringland discloses matching a particular color in a defined color space (column 17, lines 14-17 of Ringland) and informs a user of the corresponding color (figure 5(502) and column 18, lines 59-62 of Ringland).

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Edgar and Ringland are combinable because they are from the same field of endeavor, namely image data processing and color matching. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to inform the user of the corresponding matching color from the defined color space, as taught by Ringland. The motivation for doing so would have been to allow the user to properly match a desired color with an available color palette (column 17, lines 18-23 of Ringland). Therefore, it would have been obvious to combine Ringland with Edgar to obtain the invention as specified in claims 1 and 14.

Regarding claim 2: Edgar discloses using said corresponding color (column 6, lines 21-25 of Edgar) to match a color with the color to be matched (column 6, lines 25-31 of Edgar).

Regarding claim 3: Edgar discloses that the corresponding color has a reference number associated therewith (figure 6(110) and column 6, lines 28-31 of Edgar).

Edgar does not disclose expressly that the step of informing a user of the corresponding color comprises the step of informing the user of the reference number associated with said corresponding color.

Ringland discloses that the step of informing a user of the corresponding color comprises the step of informing the user of the reference number associated with said corresponding color (figure 6(614); column 17, lines 7-10; and column 19, lines 12-15 of Ringland).

Edgar and Ringland are combinable because they are from the same field of endeavor, namely image data processing and color matching. At the time of the invention, it would have been

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obvious to a person of ordinary skill in the art to specifically display the reference number associated with the matching color, as taught by Ringland. The motivation for doing so would have been to allow the user to search for a color based on the Pantone reference number (column 17, lines 7-13 of Ringland). Therefore, it would have been obvious to combine Ringland with Edgar to obtain the invention as specified in claim 3.

Regarding claim 4: Edgar discloses using said reference number to match a color with the color to be matched (column 6, lines 30-35 of Edgar).

Further regarding claim 5: Ringland discloses displaying said reference number (figure 6(614) and column 19, lines 12-15 of Ringland).

Regarding claims 8 and 17: Edgar discloses at least one computer readable storage device (figure 7(158) of Edgar) operatively associated with said computer (as can clearly be seen in figure 7 of Edgar).

Edgar does not disclose expressly computer readable program code for selecting one of the plurality of colors as said color to be matched, the computer readable program code being stored on said at least one computer readable storage device.

Ringland discloses computer readable program code (column 15, lines 19-24 of Ringland) for selecting one of the plurality of colors as said color to be matched (column 17, lines 1-3 and lines 15-17 of Ringland). It is inherent that the computer readable program code is stored on at least one computer readable storage device since otherwise it would be impossible for the computer to access and execute said computer readable program code.

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Edgar and Ringland are combinable because they are from the same field of endeavor, namely image data processing and color matching. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to select a color to be matched from a plurality of colors, as taught by Ringland. The motivation for doing so would have been to allow a user to match the color of a particular item as close as possible to the set of available colors (column 17, lines 19-23 of Ringland). Therefore, it would have been obvious to combine Ringland with Edgar to obtain the invention as specified in claims 8 and 17.

Further regarding claims 10 and 20: Ringland discloses that said defined color space comprises the Pantone Matching System (column 17, lines 19-22 of Ringland).

Regarding claims 11 and 19: Edgar discloses at least one computer readable storage device (figure 7(158) of Edgar) operatively associated with said computer (as can clearly be seen in figure 7 of Edgar); and a color look-up table (figure 7(160) of Edgar) stored on the at least one computer readable storage device (column 7, line 64 to column 8, line 1 of Edgar), said computer using the color look-up table when mapping said color image data signal to the defined color space to ascertain the corresponding color (column 6, lines 35-39 of Edgar). The various look-up tables (figure 6(114-118) of Edgar) are stored in a look-up table memory (figure 7(160) of Edgar) in the computer (column 7, line 64 to column 8, line 1 of Edgar).

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6. Claims 6-7, 9, 12-13, 15-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar (US Patent 5,598,186) in view of Ringland (US Patent 5,751,829) and Bar (US Patent 5,506,946).

Regarding claim 6: Edgar in view of Ringland does not disclose expressly selecting a color region on said object, the color region containing said color to be matched.

Bar discloses selecting a color region on said object (figure 2(204) and column 10, lines 35-37 of Bar), the color region containing said color to be modified (column 10, lines 37-39 of Bar).

Edgar in view of Ringland is combinable with Bar because they are from the same field of endeavor, namely image data and color processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to select a particular region of color and modify said color, as taught by Bar, wherein said modification is the color matching taught by Ringland. The motivation for doing so would have been to allow a user to select a particular color in a particular region of an image (column 10, lines 37-42 of Bar), and thus allow the user to match the color of portions of an item that is scanned in. Therefore, it would have been obvious to combine Bar with Edgar in view of Ringland to obtain the invention as specified in claim 6.

Regarding claims 7 and 15: Edgar discloses at least one computer readable storage device (figure 7(158) of Edgar) operatively associated with said computer (as can clearly be seen in figure 7 of Edgar).

Edgar in view of Ringland does not disclose expressly computer readable program code for selecting a color region of

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said color image data signal, the color region containing the color to be matched, the computer readable program code being stored on said at least one computer readable storage device.

Bar discloses computer readable program code (column 4, lines 26-29 of Bar) for selecting a color region of said color image data signal (figure 2(204) and column 10, lines 35-37 of Bar), the color region containing the color to be modified (column 10, lines 37-39 of Bar). Since the invention of Bar operates on a computer (column 4, lines 26-29 of Bar), program code for performing the functions of said invention is inherent. Further, it is inherent that the computer readable program code is stored on at least one computer readable storage device, such as the RAM (figure 1(106) of Bar) or the ROM (figure 1(105) and column 4, lines 35-36 of Bar), since said program code must be stored in some form of memory in order to be accessible by the computer.

Edgar in view of Ringland is combinable with Bar because they are from the same field of endeavor, namely image data and color processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to select a particular region of color and modify said color, as taught by Bar, wherein said modification is the color matching taught by Ringland. The motivation for doing so would have been to allow a user to select a particular color in a particular region of an image (column 10, lines 37-42 of Bar), and thus allow the user to match the color of portions of an item that is scanned in. Therefore, it would have been obvious to combine Bar with Edgar in view of Ringland to obtain the invention as specified in claims 7 and 15.

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Regarding claim 12: Edgar discloses that said color image data signal comprises a plurality of pixels (column 6, lines 5-7 of Edgar), each having a red tristimulus value, a green tristimulus value, and a blue tristimulus value associated therewith (column 6, lines 7-9 of Edgar). Mapping said color image data signal to the defined color space to ascertain the corresponding color further comprises inputting the red, green, and blue tristimulus values into said color look-up table to obtain the corresponding color (column 6, lines 9-14 of Edgar).

Edgar in view of Ringland does not disclose expressly computing an average red tristimulus value, an average green tristimulus value, and an average blue tristimulus value from the red, green, and blue tristimulus values of one or more of said plurality of pixels; and that said average red tristimulus value, said average green tristimulus value, and said average blue tristimulus value are the values inputted into said look-up table.

Bar discloses computing an average red tristimulus value, an average green tristimulus value, and an average blue tristimulus value from the red, green, and blue tristimulus values of one or more of said plurality of pixels (column 6, lines 7-9 and column 10, lines 52-56 of Bar).

Edgar in view of Ringland is combinable with Bar because they are from the same field of endeavor, namely image data and color processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to compute the average RGB values for the color region, as taught by Bar, and use said average RGB values as the input to the look-up tables taught by Edgar. The motivation for doing so would have been that the modification of the color occurs for the entire

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region based on the target color (column 5, lines 28-35 of Bar). Therefore, it would have been obvious to combine Bar with Edgar in view of Ringland to obtain the invention as specified in claim 12.

Regarding claim 13: Edgar discloses that said color image data signal comprises a plurality of pixels (column 6, lines 5-7 of Edgar), each having a red tristimulus value, a green tristimulus value, and a blue tristimulus value associated therewith (column 6, lines 7-9 of Edgar). Mapping said color image data signal to the defined color space to ascertain the corresponding color further comprises inputting the red, green, and blue tristimulus values of one or more of said plurality of pixels into said color look-up table (column 6, lines 9-14 of Edgar) to obtain one or more reference numbers, said reference number identifying said corresponding color (figure 6(110) and column 6, lines 28-31 of Edgar).

Edgar in view of Ringland does not disclose expressly computing an average reference number from said one or more reference numbers; and that said average reference number identifies said corresponding color.

Bar discloses computing the average colorimetric values for a specified color image data signal region (column 10, lines 52-56 of Bar).

Edgar in view of Ringland is combinable with Bar because they are from the same field of endeavor, namely image data and color processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to compute the average colorimetric values for the color region, as taught by Bar, said average values being the reference number values taught by Edgar. Since said reference number values are

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directly mapped to the color values (column 6, lines 28-31 of Edgar), computing said average colorimetric values and then computing the mapping of said colorimetric values will result in the computation of said average reference number. Further, said average reference number would therefore identify said corresponding color. The motivation for doing so would have been that the modification of the color occurs for the entire region based on the target color (column 5, lines 28-35 of Bar). Therefore, it would have been obvious to combine Bar with Edgar in view of Ringland to obtain the invention as specified in claim 13.

Regarding claim 16: Edgar in view of Ringland does not disclose expressly that said computer readable program code further comprises program code for allowing a user to select said color region.

Bar discloses program code (column 4, lines 26-29 of Bar) for allowing a user to select said color region (figure 2(204) and column 10, lines 35-37 of Bar). Since the invention of Bar operates on a computer (column 4, lines 26-29 of Bar), program code for performing the functions of said invention is inherent.

Edgar in view of Ringland is combinable with Bar because they are from the same field of endeavor, namely image data and color processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to select a particular region of color, as taught by Bar. The motivation for doing so would have been to allow a user to select a particular color in a particular region of an image (column 10, lines 37-42 of Bar), and thus allow the user to match the color of portions of an item that is scanned in. Therefore, it would

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have been obvious to combine Bar with Edgar in view of Ringland to obtain the invention as specified in claim 16.

Regarding claims 9 and 18: Edgar discloses at least one computer readable storage device (figure 7(158) of Edgar) operatively associated with said computer (as can clearly be seen in figure 7 of Edgar).

Edgar in view of Ringland does not disclose expressly computer readable program code for removing the influence of the texture from said color image data signal, the computer readable program code being stored on said at least one computer readable storage device.

Bar discloses computer readable program code (column 4, lines 26-29 of Bar) for removing the influence of the texture from said color image data signal (column 5, lines 31-38 of Bar). By specifically preserving the overall texture of the color image signal region (column 5, lines 31-38 of Bar), the influence of said texture is removed. The color processing is affected by the target color (column 5, lines 28-31 of Bar) and not the texture of the region (column 5, lines 31-38 of Bar). Since the invention of Bar operates on a computer (column 4, lines 26-29 of Bar), program code for performing the functions of said invention is inherent. Further, it is inherent that the computer readable program code is stored on at least one computer readable storage device, such as the RAM (figure 1(106) of Bar) or the ROM (figure 1(105) and column 4, lines 35-36 of Bar), since said program code must be stored in some form of memory in order to be accessible by the computer.

Edgar in view of Ringland is combinable with Bar because they are from the same field of endeavor, namely image data and color processing. At the time of the invention, it would have

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been obvious to a person of ordinary skill in the art to remove the effect that texture has upon the processing of the color image signal data, as taught by Bar. The motivation for doing so would have been to preserve the texture of a region while still being able to modify the color of said region (column 1, lines 39-44 of Bar). Therefore, it would have been obvious to combine Bar with Edgar in view of Ringland to obtain the invention as specified in claims 9 and 18.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Thompson whose telephone number is 703-305-6329. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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James A. Thompson
Examiner
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JAT
6 October 2004



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PRIMARY EXAMINER